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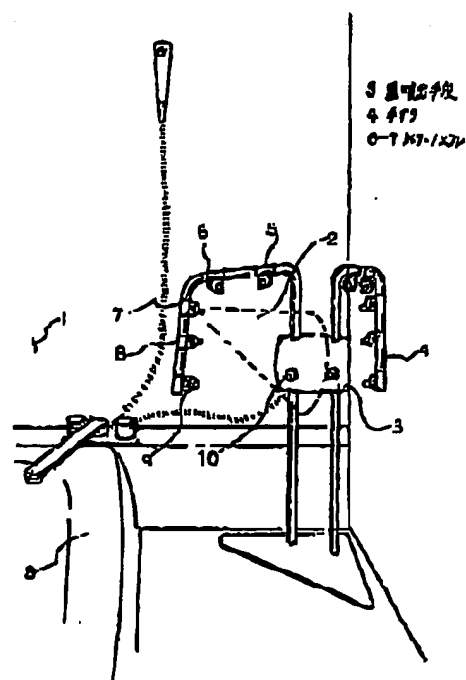
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(54) 【発明の名称】 シャワー装置

(57) 【要約】

【目的】 通常のバスタブ入浴と同等の温熱効果があり、一般のシャワー椅子及び入浴車椅子使用による座浴勢入浴により、通常のシャワー浴・バスタブ浴より身体への負担を少なくする入浴が行え、手すりによりシャワー使用時の身体保持やすべり防止を可能とするシャワー装置の提供を目的とする。

【構成】 このシャワー装置は入浴者の身体にむけ、身体を霧状の湯水によって包み込むように設けられた霧噴山手段3と、霧噴出手段3に連結された複数ノズル6〜10を保持する手すり4からなり、身体への負担の少ないシャワー入浴が可能となる。



【特許請求の範囲】

【請求項1】浴室内に設置された霧噴出手段と、前記霧噴出手段に直結された入浴者を包み込む複数のシャワーノズルのついた可動自在な手すりとからなるシャワー装置。

【請求項2】シャワーノズルは手すりの所定の位置に設けられて、入浴者の体格や入浴椅子の差異に合わせて適宜調整可能とした請求項1記載のシャワー装置。

【発明の詳細な説明】

【0001】

【産業上の利用分野】本発明はシャワー装置に関し、複数のシャワー機能を有したシャワー装置に関するものである。

【0002】

【従来の技術】シャワー設備としては従来、バスの洗いやハンドシャワー具を有した通常のシャワー設備があり、一般家庭では、前記通常のバスのバスの洗いやハンドシャワー具を手にとって適宜使用するのが通常となっている。

【0003】さらに最近では座姿勢で入浴する装置が提案されている。これは入浴室内に固定された椅子を有し、この椅子に座る入浴者のまわりにボディシャワー等の湯水ノズルを設け、入浴者を包み込むように入浴できるようにになっている（例えば特公開平5-76459号公報）。

【0004】

【発明が解決しようとする課題】一般にバスタブ入浴に比べ、シャワー入浴は静水圧作用がなく、入浴者の身体への負担が少ないが、体の芯まで暖まらない、リラックスした気分が得にくいという課題がある。

【0005】一方、座姿勢シャワー入浴は、身体への負担が少なくリラックスした気分が得られるが、通常シャワーノズルから噴出する湯水は、入浴者の体表を早急に流れてしまい、十分な温熱効果が得にくい課題がある。さらに座姿勢入浴の座は浴室に固定されると空間が狭くなる。また入浴者を包み込む複数のノズルを浴室壁面に固定するとノズルと入浴者の距離が離れてしまい、必要以上の熱損失や湯水の使用量が増す。また入浴者に接近させると入浴者の圧迫感や介護の必要な入浴者のじまになるといった課題もある。

【0006】また、虚弱な入浴者や高齢者が入浴する際には、手すりを使用することと座姿勢が望ましいとされているが、狭小な空間に椅子や手すりを必要な位置に設置することは、かなり広い空間を必要とするといった課題がある。

【0007】本発明はこのような課題を解決したもので、身体への負担の少ないシャワー入浴ができ、かつ浴室内を広く使用できるシャワー装置の提供を目的としたものである。

【0008】

【課題を解決するための手段】上記目的を達成するために、本発明は入浴者の身体に向け、この身体を包み込むように設けた複数のシャワーノズルのついた手すりとそれを連結した霧噴出手段とからなり、かつ上記手すりは入浴者の体格に合わせる事が可能なように可動自在な構成としてある。

【0009】またシャワーノズルはその向きを適宜調整可能な構成としてある。

【0010】

【作用】本発明は上記構成により、バスタブ入浴のような静水圧による入浴者への負担がない霧状シャワーにより、身体をまんべんなく濡らして空気のよい霧状の湯水で包み込み、身体全体に万遍なく充満させて熱交換を行うから、通常シャワーに比べて短時間で同等の温熱効果が得られる。また順次噴出される新しい湯水の微細粒子が、常時入れかわることによりバスタブの溜まり場の入浴と同等の温熱効果を得ることができ、かつ霧状の微細粒子のため急激な温度変化を体感させず入浴者への負担も少なくすることができる。

【0011】また手すりを使用し、座姿勢を保つことにより、通常シャワーの立姿勢に比べて身体への負担が少なく、かなり虚弱の入浴者でも座位が保たれれば入浴が可能となる。一方バスタブ入浴では、上記静水圧の影響もさることながら、タブへの出入りのまたぎ運動による負担も虚弱者にとっては負担が大きく、介助要請の高い事項となっているが、手すりがあれば多くの虚弱者の入浴が可能となり、温熱効果が高く、身体への負担が少ないものとなる。

【0012】加えて、通常浴室でしようしている入浴椅子が使用できるという利点を備えており、どんな浴室でも座姿勢入浴が可能となる。また車椅子の必要な入浴者の場合、車椅子ごとに入浴させて適切な位置に車椅子を設置することで通常入浴者と同等に座姿勢の入浴が可能になるという利点を有している。

【0013】また第二の構成の場合、霧状シャワーの複数のノズルは適宜可動させることができるので、身体全体を万遍なく包み込むことが可能となる。また、入浴者の身体まわりだけに湯水を霧状に噴出するので、節水・省エネルギーといった利点も発揮する。

【0014】

【実施例】以下その実施例を図1～図5を参照しつつ説明する。本実施例のシャワー装置は、図1～図3に示すように、浴室1に設置され、入浴者の身体にむけこの身体をまんべんなく濡らす湯水2を霧状に噴出させて、身体を霧状の湯水2によって包み込むように設けられた霧噴出手段3を基本的な構成としている。

【0015】この霧噴出手段3を働かせたシャワー浴では、この身体を回り各所から湯水2を霧状に噴出させて霧状シャワーとし、身体を霧状の湯水2によって包み込むようにするので身体をまんべんなく濡らす湯水2の

微粒子が充満する状態に包み込みながら、身体全体に万遍なく一挙に投して即時に熱交換しながらこの身体を包み込む湯水2の微粒子が、順次噴出される新しい湯水2の微粒子と常時入れ代わることにより、身体全体の熱交換を迅速かつ十分に行う。これによりバスタブ入浴の溜まり湯に入る場合と同等レベルの温熱作用が短時間で得られる。しかも、溜まり湯に入る場合のような静水圧による入浴者への負担がなく、噴出する湯水2が微粒子であることにより、急激な温度変化、刺激等の入浴者への負担もさらに少なくなる。加えて、入浴者の身体のみならず湯水を霧状に噴出すればよく、節水・省エネルギー等にもなる。

【0016】なお本実施例では、身体を包み込む湯水2の霧状シャワーを得るのに、湯水を霧状に噴出させる個別の霧噴出ノズルを複数使い、身体部のシャワーを浴びさせたい部分、例えば身体の前部に対応する霧噴出ノズル5、6、背中に対応する霧噴出ノズル10、腰部に対応する霧噴出ノズル7、8、大腿部に対応する霧噴出ノズル9等を設け、身体各部に向け湯水2を霧状に噴出させて、身体の必要部分を霧状の湯水2で包み込んだ状態とすることができるようにしてある。

【0017】これにより、必要に応じて各霧噴出ノズル3～10等を身体各部の附近に設けて、効率よくかつ適正に湯水2を身体各部に向け霧状に噴出させ包み込むことが出来るし、顔面等の所定の部分への湯水2の噴出を避けることができる。顔面等の特定の部分への湯水2の噴出を避けるため、本実施例では特に、肩部に対応するノズル5、6を図4に示すような、扇型Aに噴出させるものを採用している。他の噴出ノズル7～10は図4に示すように円錐型Bに湯水2を噴出させる噴出域の広いものを使用し、身体各部を霧状の湯水で包み込みやすくしている。

【0018】もっとも、湯水2を霧状に噴出させて、身体各部を包み込むものであれば、どのような構成の霧噴出手段3を採用してもよいのは勿論である。

【0019】霧噴出ノズル5～10は、図5に示すような構造を有し、身長差等に対応可能な可変構造とし、身体各部を霧状の湯水で包みやすくしている。

【0020】また、霧噴出手段3には複数の霧噴出ノズル7～10を保持している手すり4を有した構成としている。この手すり4は図3に示すように、可変構造を有し、入浴者の体格の変動に対しても適宜対応出来る構成としてある。

【0021】手すり4の中には図示しないが、霧噴出ノズル7～10を各々つなぐ配管が挿入されており、霧状シャワーの熱が損われない断熱効果も合わせもたせてある。手すり4は、強度の高い構造を備え、虚弱入浴者は勿論、健康入浴者でもすべり止め効果が高いものとしてある。また介護が必要な入浴者は、手すりがじゃまにならないように手すりの下部から手が入る構造としてあ

る。車椅子で入浴することを余儀なくされる入浴者が車椅子の霧噴出手段の適切な位置の移動についても、上記手すりを可動させ適宜よい位置がとれる。

【0022】また、霧噴出手段3には、既存の入浴椅子に座り霧噴出手段3から噴出される霧状の湯水を受ける構成としている。入浴椅子の大小や体格の差に合わせて、複数の霧噴出ノズル7～10のついた手すりを上下させる構造となっているため、子供や身長の高い人等でも顔等に湯水2がかかり、不快なことがない。

【0023】

【発明の効果】以上のように、本発明によれば次の効果が得られる。

【0024】先ず、バスタブ入浴のような静水圧による入浴者への負担がない霧状シャワーにより、身体のみならず浴槽性のよい霧状の湯水が包み込み、身体全体に万遍なく充満して熱交換を行うため、通常シャワーに比べて短時間で同等の温熱効果が得られる。

【0025】また順次噴出される新しい湯水の微細粒子が、常時入れかわることによりバスタブの溜り湯の入浴と同等の温熱効果がえられ、霧状の微細粒子のため急激な温度変化を体感させず入浴者への負担も少なくすることができる。また手すりを使用し、座姿勢を保つことにより、通常シャワーの立姿勢に比べて身体への負担が少なく、かなり虚弱の入浴者でも座位が保たれれば入浴が可能となる。

【0026】一方バスタブ入浴では、上記静水圧の影響もさることながら、タブへの出入りのまたぎ込み運動による負担も虚弱者にとっては負担が大きく、介助要望の高い事項となっているが手すりがあれば多くの虚弱者の入浴者の入浴が可能となり、温熱効果が高く、身体への負担もさらに軽減できる。

【0027】また第二の構成としたものにおいては、シャワーノズルを適宜可動させることによって身体全体を万遍なく包み込むことができ、効果的なシャワー入浴ができる。また、入浴椅子の差異に対応し、かつ入浴者の体格の差異にも対応することとどんな入浴者にも対応できる。また、入浴者の身体のみならず湯水を霧状に噴出させることができ、節水・省エネルギーの効果もある。

【図面の簡単な説明】

【図1】本発明の一実施例におけるシャワー装置の斜視図

【図2】同シャワー装置の側面図

【図3】同シャワー装置の使用状態を示す側面図

【図4】同シャワー装置の霧噴出ノズルの各種具体例を示す斜視図

【図5】同シャワー装置の霧噴出ノズルの半断面図

【符号の説明】

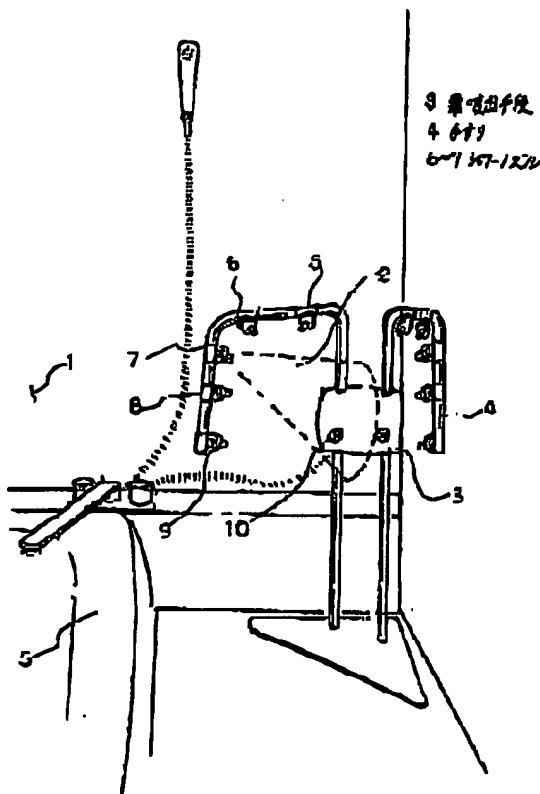
1 浴室

2 湯水

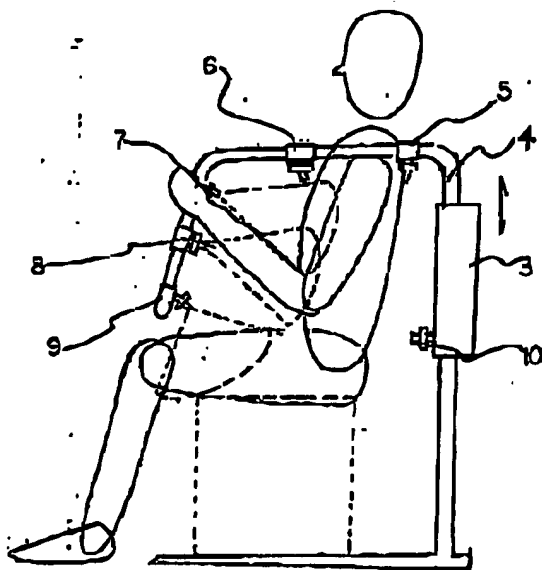
3 霧噴出装置
4 手すり

5 パスタブ
6~7 ノズル

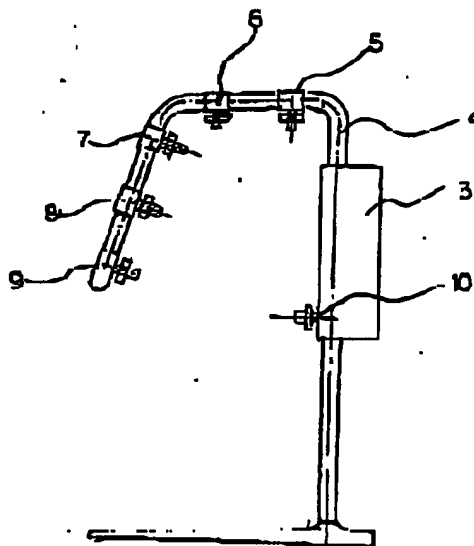
【図1】



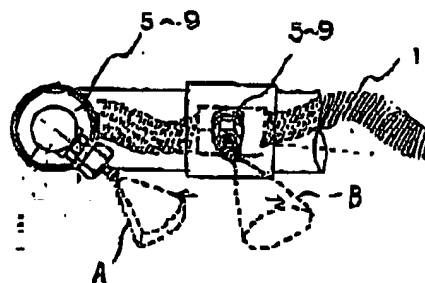
【図3】



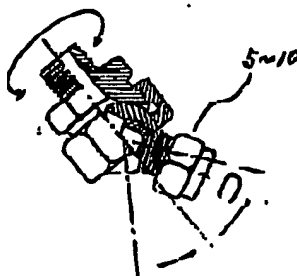
【図2】



【図4】



【図5】



PATENT ABSTRACTS OF JAPAN

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ELECTRIC IND CO
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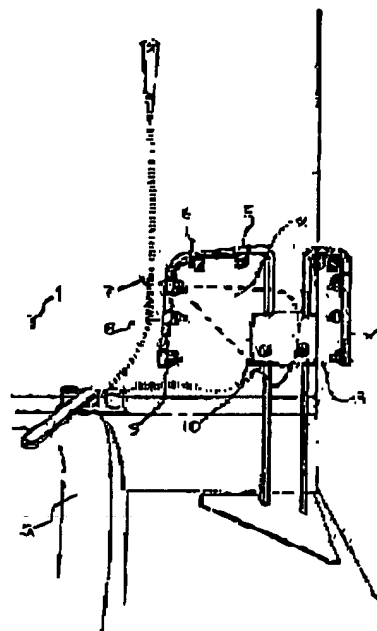
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(54) SHOWER DEVICE

(57) Abstract:

PURPOSE: To provide a shower device having the same thermal effect as that of an ordinary bathtub bath, allowing a bath giving a lower load to a body than an ordinary shower bath or a bathtub bath due to a seated-posture bath via the use of a general shower chair and a bathing wheelchair, and capable of holding the body and preventing a slip when a shower is used, via a handrail.

CONSTITUTION: This shower device is constituted of a spraying means 3 spraying mist of hot water toward the body of a bather to wrap the body with the hot water mist and a handrail 4 holding multiple nozzles 6-10 connected to the spraying means 3, and it allows a shower bath giving a low load to the body.



LEGAL STATUS

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rejection or application converted
registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against
examiner's decision of rejection]

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CLAIMS

[Claim]

[Claim 1] The shower bath which consists of a misting appearance means
installed in the bathroom, and a movable free balustrade which two or more
shower nozzles which wrap in the bathing person directly linked with the
aforementioned misting appearance means attached.

[Claim 2] A shower nozzle is the shower bath of the claim 1 publication
whose adjustment was prepared in the position of a balustrade, doubled
with a bathing person's physique, or the differentiation in a bathing chair,
and was enabled suitably.

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DETAILED DESCRIPTION

[Detailed description]

[0001]

[Field of the Invention] this invention relates to the shower bath with two or more shower functions about a shower bath.

[0002]

[Prior art] It is usual for the washing place of a bus to have the usual shower facility with the hand shower implement conventionally, and to have a hand shower implement in a hand in the washing place of the bus of the aforementioned usual bus, and to use it suitably as a shower facility, at a general home.

[0003] Furthermore, recently, the equipment which takes a bath with a seat posture is proposed, the surroundings of the bathing person who this has the chair fixed to the bathing interior of a room, and sits on this chair -- hot-and-cold-water nozzles, such as a body shower, -- preparing -- a bathing person -- ***** -- a bath can be taken now like (for example, Patent Publication extraction-of-the-square-root official report of No. 76459 [five to J])

[0004]

[Object of the Invention] The technical problem at which shower bathing generally does not have a hydrostatic-pressure operation compared with bathtub bathing, and it does not get warm to the bodily heart although there are few burdens to a bathing person's body that it is hard to acquire the relaxed temper occurs.

[0005] On the other hand, although the temper in which the burden to the body relaxed seat posture shower bathing few is acquired, the hot and cold water usually spouted from a shower nozzle has the technical problem from which it flows immediately and sufficient warm temperature effect seldom obtains a bathing person's body surface. Furthermore, if the seat of seat posture bathing is fixed to a bathroom, space will become narrow. Moreover, if two or more nozzles which wrap in a bathing person are fixed to a bathroom wall surface, the distance of a nozzle and a bathing person will separate. The heat loss beyond the need and the amount of the hot and cold water used increase. Moreover, when a bathing person is made to approach, the technical problem that it becomes a bathing person's feeling of oppression and ***** of the required bathing person of care also occurs.

[0006] Moreover, although to use a balustrade and the seat posture are made desirable in case a weak bathing person and weak old people take a bath, installing a chair and a balustrade in a required position has the technical problem that quite large space is needed in narrow space.

[0007] this invention is what solved such a technical problem, and aims at offer of the shower bath which few shower bathing of the burden to the body can be performed, and can use the inside of a bathroom widely.

[0008]

[The means for solving a technical problem] In order to attain the above-mentioned purpose, this invention consists of a misting appearance means which connected it with the balustrade which two or more shower nozzles prepared so that this body might be wrapped in attached towards a bathing person's body, and the above-mentioned balustrade is considered as the configuration in which **** is free so that doubling with a bathing person's physique may be possible.

[0009] Moreover, the shower nozzle has considered the sense as the configuration which can be adjusted suitably.

[0010]

[Operation] Since wrap the surroundings of the body in the hot and cold water of the shape of good mist of staying-in-the-air nature, the whole body is made uniformly filled with the mist-like shower which the burden to the bathing person by the hydrostatic pressure [like bathtub bathing by the above-mentioned configuration] whose this invention is does not have and a heat exchange is performed, compared with a shower, the equivalent warm temperature effect is usually acquired for a short time. Moreover, when the new detailed grain of hot and cold water which blows off one by one always puts in and changes, the warm temperature effect equivalent to bathing of the haunt of a bathtub can be acquired, and since it is detailed mist-like grain, a rapid temperature change cannot be made to be able to feel, but the burden to a bathing person can also be lessened.

[0011] Moreover, by maintaining a seat posture, usually, a balustrade is used, there are few burdens to the body compared with ***** of a shower, and it ***** is maintained, bathing also of a quite weak bathing person will be attained. On the other hand, although the burden of the receipts and payments of the influence of the above-mentioned hydrostatic pressure to a lab with last thing according [It straddles and is crowded and] to movement also has a large burden for the valetudinarian and has been the high matter of a care request by bathtub bathing, if balustraded, bathing of many valetudinarian will be attained, and the warm temperature effect is high and becomes what has a few burden to the body.

[0012] In addition, it usually has in the bathroom the advantage that the bathing chair which it carries out and has can be used, and seat posture bathing is attained in any bathrooms. Moreover, in the case of the wheelchaired ***** bathing person, bathing of a seat posture usually has the advantage of becoming possible, in the bathing person and the EQC by making it go in and out for every wheelchair, and installing a wheelchair in a suitable position.

[0013] Moreover, since it can carry out movable [of two or more nozzles of a mist-like shower] suitably in the second configuration, it is enabled to wrap in the whole body uniformly. Moreover, since hot and cold water is spouted in the shape of mist only to the circumference of a bathing person's body, the advantage of water saving and energy saving is also demonstrated.

[0014]

[Example] The example is explained below, referring to drawing 1 - drawing 5. As shown in drawing 1, - drawing 3, the shower bath of this example is installed in a bathroom 1, makes hot and cold water 2 blow off from surroundings every place of this body in the shape of mist towards a bathing person's body, and is considering the misting appearance means 3 established so that the body might be wrapped in with mist-like hot and cold water 2 as the fundamental configuration.

[0015] In the shower bath which worked this misting appearance means 3 wrapping in the surroundings of the body in the status that the particle of

the good hot and cold water 2 of staying-in-the-air nature is full, since hot and cold water 2 is made to blow off from surroundings every place of this body in the shape of mist, it considers as a mist-like shower and the body is wrapped in with mist-like hot and cold water 2 the particle of hot and cold water 2 which wraps in this body is quick in the heat exchange of the whole body by the particle of new hot and cold water 2, and always which blows off one by one being exchanged, carrying out a heat exchange to the whole body immediately in contact with one effort uniformly — and it fully carries out A warm temperature operation of the case where bathtub bathing collects by this and it goes into molten metal, and equivalent level is obtained for a short time. And there is no burden to the bathing person by the hydrostatic pressure like [in the case of collecting and going into molten metal], and when the hot and cold water 2 to spout is a particle, the burden to bathing persons, such as a rapid temperature change and a stimulus, also decreases further. In addition, only the surroundings of a bathing person's body become water saving, energy saving, etc. that what is necessary is just to spout hot and cold water in the shape of mist.

[0016] In addition, although the mist-like shower of the hot and cold water 2 which wraps the body in this example is obtained The fraction to which you want to expose the shower of the body, using the individual misting appearance nozzle which makes hot and cold water blow off in the shape of mist two or more, For example, the misting appearance nozzles 5 and 6 corresponding to the shoulder of the body, the misting appearance nozzle 10 corresponding to the back, the misting appearance nozzles 7 and 8 corresponding to the pars lumbalis, the misting appearance nozzle 9 corresponding to the regio femoralis, etc. are formed. Hot and cold water 2 is made to blow off in the shape of mist towards each part of the body, and it enables it to have considered as the status that the required fraction of the body was wrapped in mist-like hot and cold water 2.

[0017] By this, each misting appearance nozzles 3-10 etc. are formed in the nearness of each part of the body it needed, hot and cold water 2 is turned to each part of required of the body efficiently and proper, and it can be made to be able to blow off in the shape of mist, and can wrap in, and jet of the hot and cold water 2 to predetermined fractions, such as the face, can be avoided. In order to avoid jet of the hot and cold water 2 to specific fractions, such as the face, especially in this example, the thing which makes fanning A which shows the nozzles 5 and 6 corresponding to a shoulder to drawing 4 blow off is adopted. Each part of the body is made for other jet nozzles 7-10 to use the large thing of a jet region which makes hot and cold water 2 blow off for cone type B, as shown in drawing 4, and to wrap in mist-like hot and cold water.

[0018] But if hot and cold water 2 is made to blow off in the shape of mist and each part of required of the body is wrapped and put, of course, you may adopt the misting appearance means 3 of what configuration.

[0019] Each part of the body is made for the misting appearance nozzles 5-10 to have the structure which is shown in drawing 5, to make it the adjustable structure where it can correspond to a stature difference etc. and to wrap in mist-like hot and cold water.

[0020] Moreover, it is considering as the configuration with the balustrade 4 which holds two or more misting appearance nozzles 7-10 for the misting appearance means 3. As shown in drawing 3, this balustrade 4 has adjustable structure and has considered it as the configuration which can correspond suitably also to change of a bathing person's physique.

[0021] Although not illustrated in a balustrade 4, piping which connects the

misting appearance nozzles 7-10 respectively is inserted, and the adiabatic efficiency by which the heat of a mist-like shower is not spoiled is also doubled and given. A balustrade 4 is equipped with the structure where an intensity is high, and has made it what has a high effect as well as the weak bathing person that a healthy bathing person needs to stop sliding. Moreover, the bathing person to be cared for is made into the structure where a hand enters from the lower part of a balustrade so that a balustrade may not become *****. Also with a move of the suitable position of the misting appearance means of a wheelchair, the bathing person who is obliged to take a bath with a wheelchair does movable [of the above-mentioned balustrade], and a good position can be taken suitably.

[0022] Moreover, it is considering as the configuration which receives the hot and cold water of the shape of mist which sits on the existing bathing chair and blows off from the misting appearance means 3 for the misting appearance means 3. It doubles with the size of a bathing chair, or the difference of the physique, since it has the structure of making the balustrade which two or more misting appearance nozzles 7-10 attached going up and down, a child and a short person also require hot and cold water 2 for a face etc., and there is no unpleasant thing.

[0023]

[Effect of the invention] As mentioned above, according to this invention, the following effect is acquired.

[0024] First, in order for the hot and cold water of the shape of good mist of staying-in-the-air nature to wrap in the surroundings of the body, to fill the whole body uniformly and to perform a heat exchange with the mist-like shower without the burden to the bathing person by the hydrostatic pressure like bathtub bathing, compared with a shower, the equivalent warm temperature effect is usually acquired for a short time.

[0025] Moreover, when the new detailed grain of hot and cold water which blows off one by one always puts in and changes, a bathtub collects, the warm temperature effect equivalent to bathing of molten metal is acquired, since it is detailed mist-like grain, a rapid temperature change cannot be made to be able to feel but the burden to a bathing person can also be lessened. Moreover, by maintaining a seat posture, usually, a balustrade is used, there are few burdens to the body compared with ***** of a shower, and if ***** is maintained, bathing also of a quite weak bathing person will be attained.

[0026] On the other hand, by bathtub bathing, for the valetudinarian, the receipts and payments to a tub with last thing also straddle the influence of the above-mentioned hydrostatic pressure, although a burden is large and it has been the high matter of a care request, if balustraded, bathing of the bathing person of many valetudinarian can be attained, the warm temperature effect is high and the burden by lump movement can also mitigate the burden to the body further.

[0027] Moreover, if it is in what was considered as the second configuration, by carrying out movable [of the shower nozzle] suitably, the whole body can be wrapped in uniformly and effective shower bathing can be performed. Moreover, it can correspond to any bathing persons by corresponding to the differentiation in a bathing chair and corresponding also to the differentiation in a bathing person's physique. Moreover, hot and cold water can be made to blow off in the shape of mist, and there is an effect of water saving and energy saving only in the circumference of a bathing person's body.

[Translation done]

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